

Amendments to the Claims:

This listing of claims will replace all prior versions and listings, of claims in the application.

1. (Currently Amended) A navigation system comprising:
 - a central station generating integrity signals having integrity information;
 - at least one non-geostationary satellite receiving said integrity signals and generating a plurality of signals, at least one of said plurality of signals having said integrity information; and
 - a navigation receiver determining a range of said at least one non-geostationary satellite, a position of said at least one satellite, and an integrity accuracy of at least one of said range and said position in response to said plurality of signals.
2. (Original) A system as in claim 1 wherein said at least one satellite generates said plurality of signals comprising range and integrity information that is transmitted on a single frequency.
3. (Original) A system as in claim 1 wherein said at least one non-geostationary satellite generates said plurality of signals over an L5 frequency.
4. (Original) A system as in claim 1 wherein said at least one non-geostationary satellite generates said plurality of signals comprising a timing signal and a data signal.
5. (Currently Amended) A system as in claim 1 wherein said at least one non-geostationary satellite generates a first signal and a second signal, at least one of said first signal and said second signal having said integrity information.

6. (Original) A system as in claim 5 wherein said at least one non-geostationary satellite generates said first signal comprising timing information and said second signal comprising timing and integrity information.

7. (Original) A system as in claim 5 wherein said navigation receiver determines said range and said position in response to said first signal and said second signal.

8. (Original) A system as in claim 5 wherein said at least one non-geostationary satellite generates and transmits said first signal and said second signal on L-band frequencies.

9. (Original) A system as in claim 1 wherein said navigation receiver performs as an integrity-monitoring device.

10. (Original) A system as in claim 1 wherein said navigation receiver monitors a plurality of satellites and in response thereto determines accuracy of said position.

11. (Currently Amended) A system as in claim 1 wherein said at least one non-geostationary satellite generates ~~said~~ a plurality of signals comprising integrity information that is related to health of the at least one non-geostationary satellite.

12. (Currently Amended) A system as in claim 11 wherein said at least one non-geostationary satellite generates said plurality of signals comprising integrity information that is indicative of accuracy of said range and said position of said at least one non-geostationary satellite.

13. (Currently Amended) A system as in claim 1 wherein said navigation receiver determines ~~accuracy~~ integrity of said position in response to said integrity information.

14. (Cancelled)

15. (Previously Presented) A system as in claim 1 wherein the central station generates a reliability signal, said receiver determining reliability of said position in response to said reliability signal.

16. (Previously Presented) A system as in claim 1 wherein the central station generates a reliability signal, said receiver determining reliability of said range in response to said reliability signal.

17. (Previously Presented) A system as in claim 1 further comprising a monitoring station monitoring said at least one non-geostationary satellite and generating a measured signal, wherein the central station generates said integrity signal in response to said measured signal.

18. (Previously Presented) A system as in claim 17 wherein said central station generates a reliability signal in response to said measured signal.

19. (Original) A system as in claim 18 wherein said at least one non-geostationary satellite adjusts said integrity information in response to said reliability signal.

20. (Previously Presented) A system as in claim 1, wherein said central station has a first ground antenna and a second ground antenna, said first ground antenna transmitting said integrity signal and said second ground antenna transmitting a reliability signal.

21. (Previously Presented) A system as in claim 1 further comprising:
a plurality of monitoring stations generating measured signals in response to said plurality of signals,
wherein said central station is in communication with said monitoring stations and generates said integrity signals and reliability signals in response to said measured signals.

22. (Currently Amended) A navigation system comprising:

a central station generating integrity signals having integrity information;

at least one non-geostationary satellite receiving said integrity signals and generating a plurality of signals having said integrity information; and

a navigation receiver determining range of said at least one non-geostationary satellite, position of said at least one non-geostationary satellite, and ~~reliability~~ integrity of at least one of said range and said position in response to said plurality of signals.

23. (Currently Amended) A system as in claim 22 wherein said navigation receiver determines ~~accuracy~~ integrity of said position in response to said plurality of signals.

24. (Currently Amended) A navigation receiver for a navigation system receiving a plurality of signals having integrity information, from at least one non-geostationary satellite,

wherein said integrity information is transmitted to said at least one non-geostationary satellite from a central station and further,

wherein said navigation receiver has integrity-monitoring software for utilizing said integrity information,

said navigation receiver determining range of said at least one non-geostationary satellite, satellite position of said at least one non-geostationary satellite, and ~~accuracy~~ integrity of at least one of said range and said position in response to said plurality of signals.

25. (Original) A receiver as in claim 24 wherein the navigation receiver performs as an integrity-monitoring device.

26. (Original) A receiver as in claim 24 wherein the navigation receiver determines accuracy of said satellite position in response to said integrity information.

27. (Currently Amended) A receiver as in claim 24 wherein the navigation receiver determines ~~accuracy~~ integrity of said range in response to said integrity information.

28. (Original) A receiver as in claim 24 wherein the navigation receiver determines position of said receiver in response to said plurality of signals.

29. (Original) A receiver as in claim 24 wherein said navigation receiver receives said plurality of signals over a single frequency.

30. (Currently Amended) A receiver as in claim 24 wherein the navigation receiver determines ~~reliability~~ integrity of said satellite position.

31. (Original) A receiver as in claim 24 wherein the navigation receiver determines reliability of said range.

32. (Currently Amended) A receiver as in claim 24 wherein the navigation receiver determines reliability of said range and said satellite position and in response to said ~~reliability~~ integrity determines timing and velocity of a vehicle associated with the navigation receiver.

33. (Currently Amended) A method of operating a navigation system comprising:
transmitting integrity information from a central station to at least one non-geostationary satellite;
generating a plurality of signals having said integrity information from said at least one non-geostationary satellite; and

determining range of said at least one non-geostationary satellite, position of said at least one non-geostationary satellite, and ~~accuracy~~ integrity of at least one of said range and said position in response to said plurality of signals.

34. (Previously Presented) A method as in claim 33 wherein said plurality of signals are generated over a single frequency.

35. (Currently Amended) A method as in claim 33 further comprising determining ~~reliability~~ integrity of said range.

36. (Currently Amended) A method as in claim 33 further comprising determining ~~reliability~~ integrity of said position.

37. (Previously Presented) A receiver as in claim 24 that is configured to perform as an integrity-monitoring device and to perform an internal self-consistency check in response to said plurality of signals.

38. (Previously Presented) A receiver as in claim 37 that is configured to exclude information received from at least one of said at least one non-geostationary satellite in response to said self-consistency check.